



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,286	01/20/2000	Tetsujiro Kondo	450100-02293	4230

20999 7590 07/29/2003

FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 07/29/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

201

Office Action Summary

Application No.

09/488,286

Applicant(s)

KONDO ET AL.

Examiner

Tung T. Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6,8,10,13,15,17,20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,8,10,13,15,17,20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al. (US 5,364,270) in view of Loughheed et al. (US 5,686,690) as set forth in the previous Office Action, paper No. 17.

Re claims 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22, Aoyama discloses an information processing apparatus (fig. 1) for processing the video information corresponding with the motion information to drive the object in accordance with the motion information as set forth in the previous Office Action, paper No. 17.

Aoyama further teaches the predetermined motion information that has been calculated or estimated in advance and then converted into oil pressure control information to drive a servomechanism (col. 5, lines 14-18), where the motions are measured or calculated in the images (col. 5, lines 14-15), synchronism with motion in the images. Aoyama also teaches whereby the movement of the driven object is controlled by the motion control signal in a manner simulating motion to the object (col. 6, lines 16-35; e.g. the reproduced information included the motion information (col.5, lines 10-26) is controlled by the control device 13 of fig. 3, this is considered that the movement of the driven object is controlled by the motion control signal in a manner simulating motion to the object as claimed).

It is noted that Aoyama does not particularly teach a detector for detecting one motion vector for each block composed a plurality of pixels at predetermined position within a frame as specified in claims 1, 3, and 9. However, Loughheed discloses a change detection (110 of fig. 9) to detect one motion vector for each block composed a plurality of pixels at predetermined position within a frame (col. 15, lines 14-44), where a summation (112 of fig. 1) computes the difference in intensity between pixels in the current frame and the preceding frame to produce one motion.

Taking the teachings of Loughheed and Aoyama as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the change detector (110 of fig. 9) of Loughheed with the information read means (2 of fig. 1) of Aoyama to detect the motion related-signal in accordance with an image signal. Doing so would allow the processing apparatus to accurately detect motion information that would be sent to the servomechanism to move in various motions so that the user/player would enjoy the image in a real time.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22 have been considered but they are not persuasive.

The applicant argued that neither Aoyama nor Loughheed et al. teaches, "detecting motion vectors for a plurality of predetermined blocks within each frame of said image signal" in the remarks, page7.

In response, the examiner respectfully disagrees with the applicant. It is submitted that Aoyama teaches the motion information has been calculated or measure beforehand, so this is a

Art Unit: 2613

suggestion to one skilled in the art to used a technique to calculation the motion vectors (col. 5, lines 14-17) wherein the motions would be upward and downward motions, acceleration (which has motion and vectors, direction), and motions or tilt in the back, forth, right, left directions (vectors).

Lougheed teaches a technique of determining a motion vector comprising a frame buffer (120 or 122 of fig. 9) for delaying or buffering the video frame of the video image signal before displaying on the display (30 of fig. 6), wherein the detector (114 of fig. 9) detects the motion vectors for the plurality of predetermined block within each frame and suggests the motion vectors used to drive the angular encoder (22 of fig. 9; see also col. 15, lines 15-63). Since Aoyama suggests the motion information that is used for the processing apparatus and Lougheed teaches the technique of detecting motion vectors for the plurality of predetermined block within each frame and suggests the motion vectors used to drive the angular encoder (22 of fig. 9), so one skilled in the art would used the teachings of Lougheed to incorporate to the processing system of Aoyama to make obvious the present invention.

The applicant further argued Aoyama or Lougheed does not disclose moving an object in a manner simulating motion to the object in the remarks, page 7.

The examiner respectfully disagrees with the applicant. It is submitted that the motion object (the capsule moving device 18 of fig. 3) is controlled by the motion controller (13 of fig. 3) in a manner simulating motion to the object (col. 6, lines 10-35; the reproduced information contained motion information is sent to the capsule moving device (18 of fig. 3), which is considered as a manner simulating motion to the object), therefore, one skilled in the art would recognize that the Aoyama teaches the moving object in the manner simulating motion to the

Art Unit: 2613

object (col. 6, lines 14-35). In view of the discussion above, the claimed features are unpatentable over Aoyama and the combination of Aoyama and Loughheed.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone numbers for the


Art Unit: 2613

organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Tung T. Vo
Examiner
Art Unit 2613

T.Vo
July 14, 2003


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600